APPLICATION/NOTIFICATION TO CONSTRUCT OR MODIFY A DAM, DIKE, RING DIKE OR OTHER WATER RESOURCE FACILITY

Office of the State Engineer
900 East Boulevard -- Bismarck, ND 58505-0850

SFN 51695 (8/08)

SWC USE

I, the undersigned, do hereby submit the following information to the Office of the State Engineer for determination and use as a filing of information required under North Dakota Century Code §61-04-02 or as an application to construct or modify a facility under North Dakota Century Code §61-16.1-38.

(SWC USE ONLY) **No.** _____

A. GENERAL INFORMATION:

(1) This Application/Notification must include a map from an actual survey, aerial photo or topographic map. The size of the map shall be 8½ by 11 inches. The map shall have a north arrow and approximate scale. If, in the opinion of the State Engineer, the map does not contain information to properly evaluate the project, it will be returned.

(2) The proposed facility is a:

- ❒ Dam (Complete Sections A, C & F)
- ❒ Dike (Complete Sections A, D & F)
- ❒ Ring Dike (Complete Sections A, D & F)
- ❒ Wetland Restoration (Complete Sections A, C, E & F)
- ❒ Pond, Lagoon, or Dugout (Complete Sections A, B & F)
- ❒ Diversion Ditch (Complete Sections A, B & F)
- ❒ Other (Complete Sections A, B & F)

(3) Is this Application/Notification for modification of an existing structure? ❒ Yes ❒ No

If so, what year was existing structure constructed? _____ By whom? _____

(4) Project will be located in the _____ Water Resource District

(5) Legal description to the nearest forty-acre tract: _____ ¼ _____ ¼ Section _____ Township _____ Range _____

(Optional) Latitude _____ Longitude _____

(6) Waterway on which project will be located: _____

(7) A tributary to: _____

(8) Will the project, including any area inundated as a result of the project, be located entirely on land owned by the applicant?

❒ Yes ❒ No If any portion of the project will be constructed on land not owned in fee title by the applicant, written authorization to construct the project must be obtained from the landowner of record and a copy of the authorization provided to this office. If the project will impound water on land not owned in fee title by the applicant, a flowage easement must be obtained by the applicant and a copy of the easement provided to this office. If any portion of the project will be constructed within the right-of-way of a section line, roadway, or railroad, or if the project will impound water within the right-of-way of a section line, roadway, or railroad, written authorization to do so must be obtained from the appropriate authority and a copy provided to this office.

(9) Project sponsor (Water Resource District/City/US Fish & Wildlife Service, etc.) if applicable _____

(10) Contractor, if known _____

(11) Anticipated construction start date _____ Completion date _____

(12) Who will be responsible for the operation and maintenance of this project? _____

B. POND, LAGOON, DUGOUT, DIVERSION DITCH, OR OTHER WATER RESOURCE FACILITY:

(1) Design Data:

a. Pond, Lagoon, or Dugout (complete below and diagram next page for each pond or cell, photocopy if necessary)

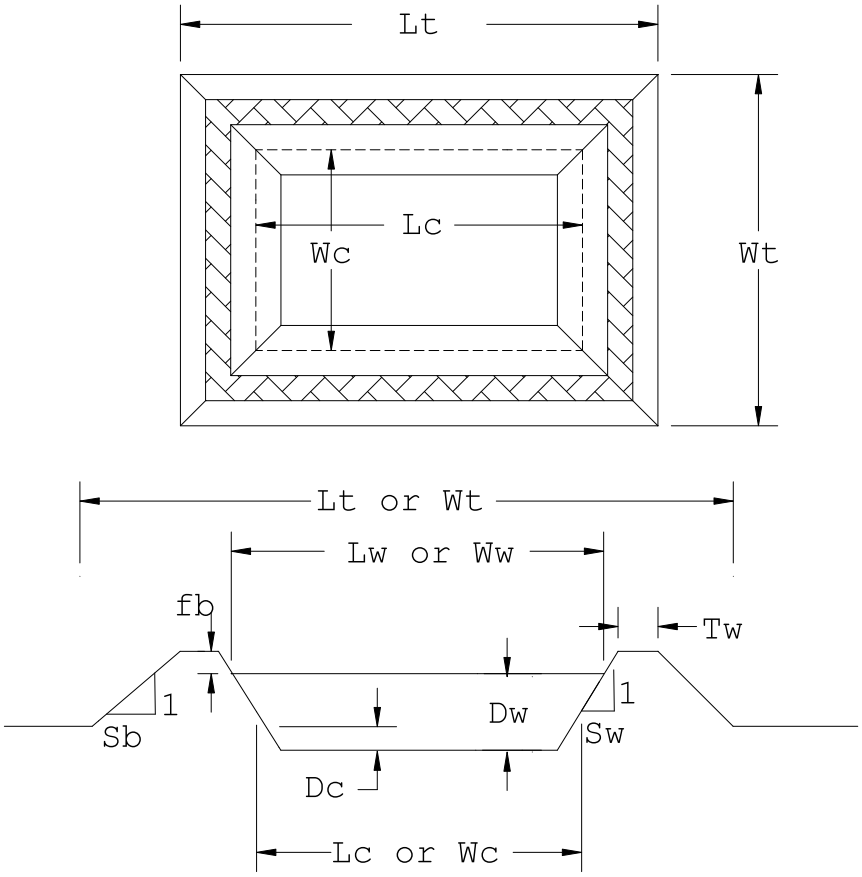
1. Surface area:	top of structure	_____	acres
	service level	_____	acres
2. Storage:	top of structure	_____	acre-feet
	service level	_____	acre-feet
3. Maximum depth of water		_____	feet
4. Maximum embankment height		_____	feet

b. Diversion Ditch

1. Length	_____	feet
2. Bottom width	_____	feet
3. Side slopes	_____	feet
4. Maximum cut	_____	feet
5. Gradient	_____	foot/foot

(2) Description of project, if not a Pond, Lagoon, Dugout, or Diversion Ditch: _____

B. OTHER WATER RESOURCE FACILITY (continued):



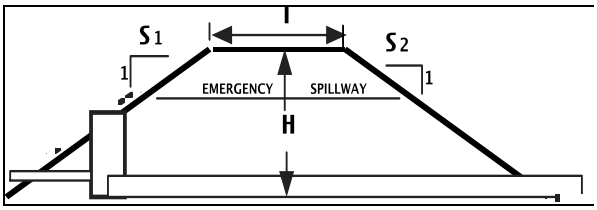
DESCRIPTION	ABBREVIATION	DIMENSION (feet)
Total length of pond (includes banks)	Lt	
Total width of pond (includes banks)	Wt	
Length of water surface at full service level	Lw	
Width of water surface at full service level	Ww	
Length of cut into the soil surface	Lc	
Width of cut into the soil surface	Wc	
Depth of cut into soil surface	Dc	
Depth of water in the pond at the full service level	Dw	
Freeboard (the distance between the full service level and the top of the structure that is used to manage wave action, usually 2-3 feet)	fb	
Top width of embankment surrounding the pond	Tw	
Outside bank sideslope ratio (usually 4:1, which is 4 horizontal feet for every 1 foot of rise)	Sb	
Inside bank sideslope ratio (will vary between 4:1 and 6:1, depending on the soil type)	Sw	

C. DAMS

(1) Drainage area above dam _____ square miles or _____ acres

(2) Purpose: _____

(3) Geometric description of dam:



a. Maximum height (H) _____ feet, elevation _____ feet msl

b. Top width (T) _____ feet

c. Side slopes: upstream (S_1) _____:1

downstream (S_2) _____:1

d. Type of embankment protection _____

e. Emergency spillway: type _____

If earthen: width _____ ft, side slopes _____:1, level section length _____ ft

Dimensions if other than earthen _____

f. Principal spillway:

Outlet pipe: type _____ diameter _____ length _____ ft

Riser: type _____ diameter _____

Control gate: type _____ dimensions _____

g. Drawdown Pipe: type _____ diameter _____

(4) Distance to nearest downstream occupied dwelling(s) _____

	ELEVATION (feet) **Indicate datum:** ❒ **local** ❒ **NGVD 29** ❒ **NAVD 88**	**RESERVOIR SURFACE AREA (acres)**	**RESERVOIR CAPACITY (acre-feet)**
Top of Dam			
Emergency Spillway			
Principal Spillway			
Drawdown Pipe			
Streambed at Dam			

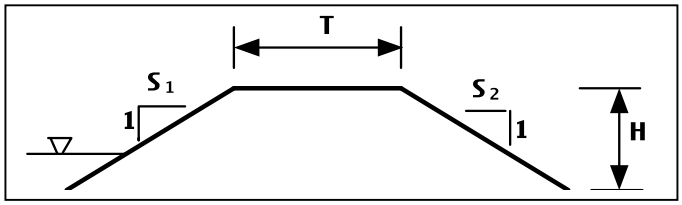
D. DIKE

(1) Is this application/notification for the construction of a ring dike? ❒ Yes ❒ No

If so, will the ring dike tie into existing? ❒ dike ❒ roadway ❒ high ground ❒ other _____

(2) Purpose: _____

_____



(3) Area of land to be protected by dike _____ acres

(4) Description of Dike:

a. Dike length _____ feet

b. Dike design:

1. Top width (T) _____ feet

2. Side slopes: interior (S_1) _____:1

exterior (S_2)_____:1

3. Maximum height (H) _____ feet, elevation _____ feet msl

Minimum height (H) _____ feet, elevation _____ feet msl

4. Embankment erosion protection: _____

(5) Will the dike flood or adversely affect adjacent, upstream or downstream land? ❒ Yes ❒ No

If yes, attach flowage easements. Easements must include a description of provisions, and names and signatures of grantors.

E. WETLAND RESTORATION

(1) The proposed wetlands are: ❒ Temporary ❒ Permanent

(2) Drainage area above dam _____ square miles or _____ acres

(3) Is this project mitigation for another project? ❒ Yes ❒ No

If yes, please describe: _____

(4) Describe the proposed operation plan for the wetland: _____

	OVERFLOW ELEVATION (feet) **Indicate datum:** **❒ local ❒ NGVD 29 ❒ NAVD 88**	**CAPACITY (acre-feet)**	**SURFACE AREA (acres)**
Existing			
Natural			
Proposed			
Top of Structure			

F. ADDITIONAL INFORMATION, AFFIDAVIT OF DESIGN ENGINEER, AND SIGNATURE

(1) Additional information and comments: _____

_____

_____

_____

(2) A complete set of plans and specifications prepared by a professional engineer registered in the State of North Dakota must be submitted with and made part of this Application/Notification if the proposed structure will be capable of retaining, obstructing, or diverting more than 50 acre-feet of water, or if the structure is a medium or high hazard dam, as determined by the State Engineer, capable of retaining more than 25 acre-feet of water. Low hazard dams, as determined by the State Engineer, less than 10 feet in height are exempt from the requirement for professional engineering services. If plans and specifications are required, the following affidavit must be completed:

I, _____ (name), _____ (PE license number), a Professional Engineer registered in the State of North Dakota, designed and/or personally supervised the design of the project as described in this application and on any attached sheets, and construction will be inspected in accordance with North Dakota Administrative Code §89-08-03-01. Date: _____

(3) The filing of this Application/Notification in no way relieves the applicant or landowner from any responsibility or liability resulting from the construction, operation or failure of the project.

Land Owner (print): _____

Address: _____

_____

Phone: _____

Signature: _____ Date: _____

Sponsoring Agency: _____

Address: _____

_____

Phone: _____

Signature: _____ Date: _____